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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

RUTKOWSKI, JEFFREY M

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

06/24/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/751,340	Applicant(s) LOVY ET AL.	
	Examiner JEFFREY M. RUTKOWSKI	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/20/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 73-112 have been cancelled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1-3, 19-21, 37-39 and 55-57** are rejected under 35 U.S.C. 103(a) as being unpatentable over Eytchison et al. (US Pg. Pub. 2003/0046437), hereinafter known as Eytchison, in view of Horbal et al. (US Pat 6,112,246), hereinafter referred to as Hornbal.

4. For **claims 1, 19, 37 and 55** Eytchison teaches a content abstraction layer for use in home network applications [title]. Eytchison teaches a unified communication interface to a Content Abstraction Program Interface (CAPI), where the CAPI communicates with a device layer through a unified communication interface of a Device Abstraction Layer (DAL) and where the CAPI abstracts low level device control functions of the plurality of devices into a set of content services which control the content accessible to the plurality of interconnected electronic devices

[0013] (transmitting data between dissimilar communication devices, wherein said dissimilar communication devices communicate through a common interface). Eytchison further teaches a Graphical User Interface (GUI) of a content-centric network may be displayed on a variety of display devices (a storage medium, said storage medium having stored thereon instructions) including a computer, television set or Personal Digital Assistant (PDA) [0034].

5. Eytchison's DAL **210** is used as a type of proxy, which is external to the networked device, to provide a common interface [0033]. Eytchison does not disclose a common interface that is internal to each device. Horbal discloses an micro-server that is implemented in networked devices and is used to abstract the functionality of the device and provide a common interface via Hyper Text Transfer Protocol (HTTP) [col. 2 lines 20-30, col. 3 lines 26-50, col. 4 lines 30-35, col. 5 lines 17-25]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Horbal's micro-server in Eytchison's invention to reduce the total cost of ownership of the network [col. 1 lines 46-54].

6. For **claims 2, 20, 38, and 56** Eytchison discloses devices are connected by a network backbone [0030], the backbone includes Ethernet, Bluetooth or other network backbones [0033] (wherein said dissimilar communication devices form a LAN).

7. For **claims 3, 21, 39 and 57** Eytchison discloses the LAN devices **101-105** communicate across a network **100** using their own native communication protocols [0033 and figure 1] (claims 3 and 21: further comprising, prior to said transmitting data, establishing a network connection between said dissimilar communication devices; claims 39 and 57: further comprising, prior to said sharing data, being capable of establishing a network connection between said dissimilar communication devices).

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8. **Claims 1-5, 8, 17-18, 19-23, 26, 35-36, 37-41, 44, 53-54, 55-59, 62, and 71-72** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell et al. (US Pat 6,853,637), hereinafter known as Norrell, in view of Eytchison and Hornbal.

9. For **claims 1, 19, 37 and 55**, Norrell teaches a converged home gateway [title]. Norrell teaches a Local Area Network (LAN) **20** may include devices such as computers, computer peripherals such as printers and modems, copiers, fax machines and Personal Digital Assistants (PDA) [col. 5 lines 7-12 and figure 5]. The devices have internal and/or external adapters **74,76** [figure 3] connecting them to a local shared medium [col. 10 lines 40-45] for communicating with other devices and/or a gateway device **100** [col. 10 line 48 and figure 2] (claims 1, 19: transmitting data between dissimilar communication devices, wherein said dissimilar communication devices communicate through a common interface that operates on said dissimilar communication devices in accordance with aspects of said dissimilar communication devices that have been abstracted; claims 37 and 55: network comprising: dissimilar communication devices capable of sharing data with other dissimilar devices, wherein said dissimilar communication devices communicate through a common interface that operates on said dissimilar communication devices in accordance with aspects of said dissimilar communication devices that have been abstracted). Norrell teaches the adapters **74,76** [figure 3] include a transceiver **400** [figure 4] used for communicating with other adapter devices or the multi-port transceiver of the gateway device **100** [col. 10 lines 45-52]. Norrell further teaches the transceiver **400** includes a scrambler algorithm used in V.34 modems. The code for the implementation of the algorithm exists on common DSP platforms (storage medium) [col. 11

lines 39-44 and figure 4] (claim 19: a storage medium, said storage medium having stored thereon instructions).

10. Norrell does not teach the devices are abstracted. Eytchison teaches the device abstraction limitation absent from the teachings of Norrell by disclosing each device is abstracted into an overall content-concentric architecture **[0036]**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to abstract the network devices in Norrell's invention to present an interface to a user where only needed functional information is viewable.

11. The combination of Norrell and Eytchison disclose a DAL **210** used as a type of proxy, which is external to the networked device, to provide a common interface **[0033]**. The combination of Norrell and Eytchison does not disclose a common interface that is internal to each device. Horbal discloses an micro-server that is implemented in networked devices and is used to abstract the functionality of the device and provide a common interface via Hyper Text Transfer Protocol (HTTP) **[col. 2 lines 20-30, col. 3 lines 26-50, col. 4 lines 30-35, col. 5 lines 17-25]**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Horbal's micro-server in Norrell's invention to reduce the total cost of ownership of the network **[col. 1 lines 46-54]**.

12. For **claims 2, 20, 38, and 56**, Norrell discloses the use of a LAN **[col. 5 lines 7-12 and figure 5]** (wherein said dissimilar communication devices form a LAN).

13. For **claims 3, 21, 39 and 57** Norrell discloses the networked devices are connected over a typical wire medium found in a residence or a small business. Where some of the wirings originate at a central node **[col. 10 lines 27-32]**. Also, the transceiver implements the physical layer for communicating with other adapter devices **[col. 10 line 46]** (claims 3 and 21: further

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comprising, prior to said transmitting data, establishing a network connection between said dissimilar communication devices; claims 39 and 57: further comprising, prior to said sharing data, being capable of establishing a network connection between said dissimilar communication devices).

14. For **claims 4, 22, 40 and 58**, Norrell discloses the network adapters **74,76** and the gateway **100** use a layered stack [**figure 3**] (wherein said common interface comprises a layered functional hierarchy having multiple layers).

15. For **claims 5, 23, 41 and 59**, Norrell discloses the layered stack containing multiple protocol layers one of the protocol layers is made up of Transmission Control Protocol/ Internet Protocol (TCP/IP) and Internetwork Packet Exchange (IPX) protocols [**figure 2 and col. 4 line 30**] (wherein at least one of said multiple layers comprises a protocol layer, said protocol layer including at least two protocols).

16. For **claims 8, 26, 44 and 62**, Norrell discloses the TCP/IP protocol stack is used to transfer data [**col. 8 line 11**] (wherein said data is transmitted between said dissimilar devices through a layer of said layered functional hierarchy).

17. For **claims 17, 35, 53 and 71**, Norrell discloses the LAN includes a Personal Computer **540** PC [**figure 5**] (wherein at least one of said dissimilar communications devices includes the capability to perform at least one of the following tasks: access digital data, execute digital data, and transfer digital data).

18. For **claims 18, 36, 54 and 72**, Norrell discloses the LAN includes a Personal Digital Assistant **550** PDA [**figure 5**] (wherein at least one of said dissimilar communications devices

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includes the capability to perform at least one of the following tasks: store digital data, transfer digital data, and organize digital data).

19. **Claims 6-7, 24-25, 42-43 and 60-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell in view of Eytchison and Horbal as applied to **claims 5, 23, 41 and 59** above, and further in view of Simpson-Young et al. (US Pat 7,191,236), hereinafter known as Simpson.

20. For **claims 6, 24, 42 and 60** the combination of Norrell, Eytchison and Horbal disclose the network adapters **74, 76** and the gateway **100** use a layered stack [**Norrell, figure 3**]. The combination of Norrell, Eytchison and Horbal does not teach the use of messaging or discovery protocols. Simpson teaches the messaging and discovery protocol limitation absent from the teachings of the combination by disclosing Service Location Protocol (miniSLP) [**col. 8 line 64 to col. 9 line 2**] is used as a service discovery protocol and Extensible Markup Language (XML) messaging [**col. 10 line 60**] is used as a communication protocol (wherein said at least two protocols comprise a messaging protocol and a discovery protocol). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use XML messaging in Norrell's invention to ensure a common data representation in requests. It also would have been obvious to a person of ordinary skill in the art at the time of the invention to use miniSLP in Norrell's invention to discover new services available on the network.

21. For **claims 7, 25, 43 and 61** the combination of Norrell, Eytchison, Horbal and Simpson teach everything in **claims 6, 24, 42 and 60 respectively**. Eytchison further teaches a Device Abstraction Layer (DAL) is used to present a unified communication interface [**abstract**]

(wherein at least one of said multiple layers comprises an abstraction layer including said aspects of said dissimilar communication devices that have been abstracted).

22. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a DAL in Norrell's invention as a common interface for all devices on the network since the functionality of the device is abstracted by the DAL.

23. **Claims 9-10, 27-28, 45-46 and 63-64** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell in view of Eytchison and Horbal as applied to **claims 4, 22, 40 and 58 respectively** above, and further in view of Wilkinson et al. (US PgPub 2002/0099867), hereinafter known as Wilkinson.

24. For **claims 9, 27, 45 and 63**, The combination of Norrell, Eytchison and Horbal does not teach an Operating System (OS) layer is part of the layered stack **[figure 3]**. Wilkinson teaches the OS layer **6** absent from the teachings of the combination by disclosing an OS layer is used in a software architecture **[figure 1 and 0043-0044]** (wherein at least one of said layers comprises an operating system layer). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use an OS abstraction layer in Norrell's invention to facilitate an OS independent environment.

25. For **claims 10, 28, 46 and 64**, the combination of Norrell, Eytchison and Wilkinson teach everything in **claims 9, 27, 45 and 63**. Wilkinson further teaches included in the OS layer is an abstraction layer **14** allowing for the use of third party components such as device drivers **18 [0049]** (wherein said operating system layer includes the capability to access components of said dissimilar devices). It would have been obvious to a person of ordinary skill in the art at the time

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of the invention to use a device driver in Norrell's invention since device drivers allow an Operating System (OS) to communicate with the network.

26. **Claims 11-13, 29-31, 47-49 and 65-67** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell in view of Eytchison and Horbal as applied to **claims 1, 19, 37 and 55** above, and further in view of Li et al. (US Pat 6,789,123), hereinafter known as Li.

27. For **claims 11-13, 29-31, 47-49 and 65-67**, Norrell discloses an infrastructure access device provides a home LAN with access to voice, data and television services **[abstract]**. The combination of Norrell, Eytchison and Horbal does not teach the information transferred includes different types of files. Li teaches the differential file transfer limitation absent from the teachings of the combination by disclosing streaming delivery of media content **[abstract]** includes media files such as audio files, video files, still images, text captions, etc. **[col. 9 line 34]** (wherein said data comprises at least one file). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use audio and digital files in Norrell's invention to provide video services over TCP/IP.

28. For **claims 12-13, 30-31, 48-49 and 66-67**, the combination of of Norrell, Eytchison and Horbal does not disclose the use of digital media files. Li teaches the differential file transfer limitation absent from the teachings of the combination by disclosing streaming delivery of media content **[abstract]** includes media files such as audio files, video files, still images, text captions, etc. **[col. 9 line 34]** (wherein said at least one file comprises a digital media file). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use audio and digital files in Norrell's invention to provide video services over TCP/IP.

29. **Claims 14, 32, 50 and 68** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell in view of Eytchison and Horbal, as applied to **claims 1, 19, 37 and 55** above, and further in view of Chen et al. (US Pg Pub 2001/0030950), hereinafter known as Chen.

30. For **claims 14, 32, 50 and 68** Norrell discloses LAN devices include computers, computer peripherals including printers and modems, fax machines, Personal Digital Assistants (PDA), copiers, fax machines, televisions, audio-visual equipment, appliance thermostats and lighting fixtures [**col. 5 lines 6-12**]. The combination of Norrell, Eytchison and Horbal does not teach a wireless phone as a LAN device. Chen teaches the wireless phone limitation absent from the teachings of Norrell by disclosing a wireless phone is connected to a wireless gateway [**0073**] (wherein said dissimilar communications devices at least include: computing devices, wherein the computing devices may be configured to exchange data by use of differing protocols, digital audio devices, remote control devices, wireless phones, and digital media devices). It would have been obvious to a person of ordinary skill in the art at the time of the invention to include wireless phones in Norrell's invention to facilitate the exchange of information amongst all home devices.

31. **Claims 15, 33, 51 and 69** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell in view of Eytchison, Horbal and Chen as applied to **claims 14, 32, 50 and 68** above, and further in view of Prabhu et al. (US Pat 6,298,069), hereinafter known as Prabhu, and Ludtke et al. (US Pat 6,233,611), hereinafter known as Ludtke.

32. The combination of Norrell, Eytchison, Horbal and Chen does not teach abstraction includes controlling, executing, recording, storing, discovering, and messaging. Ludtke teaches a Device Control Module (DCM) is used to abstract all of the capabilities and requirements of a

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device [col. 2 lines 17-22]. Prabhu expands on the teaching of Ludtke by disclosing the device may be implemented as television sets, audio reproduction systems, personal computers (storing), digital video disk devices, Video Cassette Recorders (VCR) and set-top boxes for digital recording [col. 4 lines 15-25]. Prabhu further teaches a messaging system [figure 4] which includes a Communication Media Manager 426 (CMM) for managing communications through a device driver onto a network bus [col. 6 line 62]. The DCM managers 416 perform a discovery operation to find the appropriate host for controlling a newly added service [col. 7 lines 3-8]. The self-DCM 425 is used to represent and control various (executing) various functions of the local device [col. 7 lines 32-35] (wherein said aspects of said dissimilar communications devices that have been abstracted include: controlling, executing, recording, storing, discovering, and messaging). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a messaging system with a DCM in Norrell's invention to model a device to be controlled remotely over a network.

33. **Claims 16, 34, 52 and 70** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell in view of Eytchison and Horbal, as applied to **claims 1, 19, 37 and 55 respectively** above, and further in view of Ludtke.

34. For claims 16, 34, 52 and 50, Norrell discloses a converged home gateway [title] and a LAN is made up of a variety of devices [col. 5 lines 7-12]. The combination of Norrell, Eytchison and Horbal does not teach one of the nodes on the network is capable of controlling other nodes on the same network. Ludtke teaches the controller node limitation absent from the teachings of the combination by disclosing a user uses an interface to access a media manager to enter functions which are to be completed using other devices on the network [col. 2 lines 24-26]

(wherein at least one of said dissimilar communications devices includes the capability to control another of said dissimilar communications devices). It would have been obvious to a person of ordinary skill in the art at the time of the invention to use an interface to control other nodes on the LAN in Norrell's invention to set a timer for a device to perform a certain action (i.e. record a television program).

Response to Arguments

35. The arguments with respect to Horbal teaching away from Eytchison are not persuasive. Eytchison teaches against retrofitting existing services to accomplish tasks that they were never intended to perform (see paragraph 0008). Horbal's micro-server was created to abstract the functionality of a device (see figure 3). Therefore, Horbal's micro-server is not performing tasks it was not intended to perform.

36. The problem with Eytchison's architecture is there are single points of failure with respect to the proxy devices **201-206** (see figure 2). The person of ordinary skill in the art would turn to Horbal because Horbal's architecture solves the problem of having a single point of failure (see col. 1 lines 43-45).

37. Applying Horbal's embedded server does not obviate the need for transmitting data between dissimilar communications devices. All devices share a common micro-server interface but maintain their respective OEM code (see figure 4 of Horbal).

38. Applicant's arguments filed 03/20/2009 have been fully considered but they are not persuasive, for the reasons stated above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey M Rutkowski/
Examiner, Art Unit 2416

/KWANG B. YAO/
Supervisory Patent Examiner, Art Unit 2416